

XII. *Description of a new Genus and two new Species of Cecidomyidae, and six new Species of Acalyptrate Muscidae (Ephydriidae and Milichidae).* By J. E. COLLIN.

PLATES XIV, XV, XVI (figs. 1-4), XVII.

CECIDOMYIDAE.

Subfamily :—*CECIDOMYINAE*.

Group :—*CECIDOMYLARIAE (DIPLOSARIAE)*.

FARQUHARSONIA, gen. n.

Eyes connected for a long distance on upper part of head. Antennae 2 + 12 jointed, the flagellar joints in the male binodose, the two nodes being connected by a narrow neck except on the first flagellar joint, where the neck is indicated by a slight constriction; each node with an apical circle of looped threads, the loops all about equal in length and barely reaching to the base of the following node, the apical node of each of at least the first ten flagellar joints with, in addition, a basal circle of inconspicuous pores similar to those on the antennal joints of the female, and like them without looped threads; apical joint with a short cylindrical terminal process. Flagellar joints of female cylindrical and sessile; each with two circles of inconspicuous pores connected by two longitudinal lines of similar pores. Palpi four-jointed, long and very slender. Proboscis extraordinarily developed, half as long again as head is deep, chiefly composed of the greatly developed paraglossae. Male hypopygium with a conspicuous triangular projection at base of the basal segment of the forceps; apical segment slender and bare with a slightly hooked tip; upper anal lamella triangularly emarginate; lower lamella longer, somewhat battle-dore-shaped, bearing numerous hairs round the margin, and considerably shorter than the style. Female ovipositor not extensile, terminating in two oval upper, and two very similar lower, lobes. Legs clothed with short adpressed scale-like hairs. All unguis bifid, the lower tooth shorter and more slender than the upper; empodium rudimentary. Wings rather short and broad, auxiliary vein present (more easily distinguished where viewed from beneath), cubital vein slightly down-curved and ending very little below tip of wing.

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This genus is easily distinguished by the structure of the mouth-parts. If the presence of an auxiliary vein has not been overlooked in other genera of the *Cecidomyiariae*, it belongs to a group containing only a few genera, of which *Tetradiplosis* Kieff. from Argentina (known in the female sex only) also has bifid ungues, rudimentary empodium and non-extensile ovipositor.

F. rostrata, sp. n. Plates XIV, figs. 1-10; XVI, fig. 1.

♂. Eyes large occupying greater part of head. Frons and face short, brownish, the latter with a few short yellowish hairs on the lower part. Occiput rather puffed out, brownish-black with a fringe of very long curved black hairs, similar hairs being present on the lower part of head beneath the neck. A small ocellar tubercle bearing a pair of very long curved bristles. Antennae about half as long again as head and thorax together. First flagellar joint only constricted about the middle, second joint with a very short neck separating the two nodes, subsequent joints with this neck and the terminal pedicel gradually becoming slightly longer, but even on the penultimate joint they are hardly as long as the node from which they respectively arise; last node with a cylindrical pubescent terminal process devoid of bristles or pores and only a little more than one-third the length of the node; the basal node of each joint appears to bear only a single whorl of bristles, but the apical node in addition to a subapical whorl, bears numerous finer more strongly curved bristly hairs. Mouth-parts remarkably developed, the two valves of the paraglossae being produced into a huge yellow beak; each valve is thin, chitinous, semi-transparent and clothed on the convex, outer (lateral) side with yellowish hairs which become longer on the hinder edge towards the pointed tip. Inside the chamber formed by these two valves are found the much shorter labrum and hypopharynx, the latter with a long slender "tongue"-like organ reaching to the tip of the paraglossae. This "tongue" is hair-like and microscopically pubescent at the tip. Palpi yellow, four-jointed, very long and equally slender, second joint the shortest, the almost equally long first and fourth joints being slightly longer than the third. Head connected to thorax by a long slender membranous neck.

Thorax yellowish, slightly brownish on disc, with two rows of black bristly hairs (some of them very long) gradually converging to form a large V, starting behind each humerus and ending in front of scutellum; other bristly hairs are present above notopleural depression, on postalar calli, and in the form of two rather ill-defined

tufts at tip of scutellum. A fringe of similar very long bristly hairs extends from below root of wing to base of middle coxa.

Abdomen rather darker than thorax, clothed dorsally and ventrally and on basal segment of genital forceps with numerous long dark bristly hairs, especially long on hind-margins of segments. Legs yellow, but more or less obscured, especially on tibiae and tarsi, by a clothing of short adpressed scale-like hairs. Coxae, trochanters, and all the femora beneath, with rather long dark hairs. Tarsi very long and slender; unguis very small, bidentate, the lower tooth arising near the base, more slender and shorter than upper tooth; empodium absent or very short.

Wings short and broad, the costal, subcostal, and cubital veins dark, the postical and postical folds much less distinct. Auxiliary vein present but inconspicuous, most easily seen when viewed from underside of wing, this vein bears about three small pores just in front of humeral cross-vein; subcostal vein with two similar pores at its junction with costa; cubital vein with a single pore at cross-vein and two others at about three-quarters of the distance to tip. The curved scale-like hairs on both upper and lower surface of wing point towards the base of wing. Halteres with dusky knobs clothed with narrow adpressed scales.

♀. Resembling the male, but antennae shorter, with the joints all simple, longer than broad, almost sessile, and without the looped hairs of the male; the bristles on these joints do not appear to be arranged in distinct whorls, though there appear to be some stronger bristles at the base of each joint, at least on the upperside. Abdomen terminating in a non-telescopic ovipositor, bearing two pairs of ovate, short-haired papillae.

Length (not including antennae), very variable, from .5 mm. (some males) to 2 mm. (some females).

[A description, on pp. 439-40, of the abundant material is followed by Farquharson's account of the habits. The species was captured at Agege (152 ft.), 16 m. N. of Lagos, as well as at Moor Plantation, near Ibadan, S. Nigeria. The Cecidomyids fly over the carton nests of *Cremastogaster* ants, and, approaching ants engaged in feeding others, endeavour, while hovering in the air, to abstract a portion of the regurgitated droplet. The ant was *Crem. buchneri* r. *alligatrix* at Agege, and near r. *alligatrix* at Moor Plantation.—E.B.P.]

CHAETODIPLOSIS Kieffer, Bull. Soc. Metz, xxviii, p. 103
(1913).

C. gymnastica, sp. n. Plates XV, figs. 1-8; XVI, figs. 2-4.

♂. Eyes connected for a long distance on upper part of head. Antennae 2 + 12 jointed, exceedingly elongate (quite twice as long as the insect itself) and with all the flagellar joints binodose, the nodes connected by a long narrow neck and the joints by a slightly longer pedicel arising from the distal node. Basal node of each joint globular, distal node more elongate, rather wider at tip than at base and more or less constricted about the middle (more so towards end of antennae); basal node with a circle of looped threads of almost equal length, distal node with two such circlelets; basal node with a circle of long bristly hairs, distal node with an apical circle of similar hairs, and in addition (especially beneath) with numerous finer more curved hairs. Apical antennal joint with a terminal appendage of which the basal half is ovate, the apical half cylindrical. Face short, yellowish, bearing a few yellowish hairs on the lower part. Palpi four-jointed, yellow; basal joint short, second and third equal, and each about twice as long as the first, fourth joint the longest, slightly longer than the third. Proboscis somewhat prominent (in a prepared specimen about half as long as head is deep), paraglossae not at all pointed. Ocellar tubercle with two long curved bristles, and other curved bristles on occiput and lower part of head beneath neck as in *Farquharsonia*, but more yellowish. Thorax and abdomen yellowish, or brownish-yellow, with bristly hairs much as in *Farquharsonia* but not so dark in colour. Hypopygium with only a very slight basal projection on inner side of basal segment of forceps, apical segment slender, bare, tip slightly hooked and apparently bifid. Upper anal lamella deeply triangularly emarginate, dividing it into two narrow pointed lobes; lower lamella closely adpressed to style, being also the same width as that organ but not quite so long and rounded at the tip. Legs long and slender, yellowish, but obscured especially on tibiae and tarsi by a clothing of adpressed, brownish, scale-like hairs. All femora with long yellowish hairs beneath. Ungues simple. Empodium very short. Wings longer than in *Farquharsonia* and all the veins yellowish; auxiliary vein present; cubital vein strongly down-curved toward the tip and ending well below apex of wing. Halteres yellow, the knob slightly obscured by a clothing of adpressed, brownish, scale-like hairs.

♀. Resembling the male, but antennae not half so long; the flagellar joints simple and cylindrical, connected by a short but

distinct pedicel; each joint with two cirelets of minute pores connected by longitudinal lines of similar pores very much as in *Farquharsonia* but the pores smaller and consequently less easily distinguished. The antennae are very distinctly hairy; at the base of each of at least the first ten flagellar joints two or three straight bristly hairs on the upperside are distinctly longer and stronger than any others, the majority of the others being finer, paler, more curved, and especially numerous on the underside of each joint; appendix to apical joint with a few hairs on the ovate basal portion. Abdomen with rather shorter yellow bristly hairs and in addition with numerous very short adpressed, scale-like hairs. Ovipositor membranous, normally telescoped within the abdomen, but capable of very considerable extension, terminating above in two narrow, elongate, club-shaped papillae bearing a few short fine hairs, and beneath with two broadly sessile ovate lobes forming the lower lip of the oviduct.

Length very variable—·5 to 1·5 mm.

[Eight ♂ and 34 ♀ hanging from threads in a hollow in the trunk of *Alstonia*, containing part of the carton nest of *Cremastogaster*, Moor Plantation, S. Nigeria, Aug. 11, 1918. For Farquharson's account of the habits see pp. 442-43.—E.B.P.]

The genus *Chaetodiplosis* was described by Kieffer for the reception of *C. tropica*, a new species from Taveta in British East Africa of which he appears to have seen only a single female specimen with damaged palpi. Farquharson's species seems to agree sufficiently in venation, structure of antennae and ovipositor, as well as in having simple ungues and rudimentary empodium, to be congeneric. Certainly Kieffer described the ovipositor as having "un petit lobe ventral," whereas in *gymnastica* there are two lobes of which the greater part of each is embedded in the membrane of the lower lip of oviduct; also he laid stress upon the antennal joints having "deux verticilles de poils dont l'inferieur a d'un cote des poils gros, raides et presque deux fois aussi longs que ceux de l'autre cote," while not mentioning the numerous fine curved hairs which exist beneath each flagellar joint in *gymnastica*. These differences however, do not appear to justify the separation of *gymnastica* generically from *tropica*, especially so long as the male of the latter species remains undiscovered.

A single female specimen of a quite distinct species was found among the numerous specimens of *C. gymnastica*

collected by Farquharson as described on p. 442. It is easily distinguished by its straighter cubital vein ending at wing-tip, and the more ovate terminal lobes of ovipositor. In default of further material no attempt has been made to mount and describe this specimen.

EPHYDRIDAE.

RHYNCHOSILOPA Hendel, Suppl. Ent., II, 96 (1913).

R. apicalis, sp. n.

Frons, thorax and abdomen brightly shining, glassy, with metallic blue and violet reflections. No acrostichal bristles. Tip of wing darkened.

♂ ♀. Face shining yellowish with the projecting (clypeus-like) mouth-edge whitish. Palpi dusky yellow. Arista yellow at least about the base but the hairs dark. Scutellum duller than disc of thorax; upper half of pleurae dusted greyish. Thoracic bristles long, but no acrostichals; one pair of dorso-centrals at middle of thorax very long with 2-3 smaller somewhat incurved pairs in front decreasing in length as they approach front of thorax, and one pair (shorter than middle pair) behind, half-way towards scutellum; a humeral, two notopleural, an up-curved posthumeral, two intralar (the hinder one very long), a small supra-alar, and two postalar bristles. Abdomen with long bristly hairs especially on the 3rd-5th segments. Front coxae, all tibiae, and tarsi except last 1-2 joints, yellow; rest of legs varying from yellowish-brown to black. Wings with the tip (including the end of the cubital and discal veins) darkened, and with a darkened patch on all the veins across the base of wing, opposite (and including) the humeral cross-vein. Halteres white with a dusky base to stem.

Length about 2 mm.

[Farquharson's material included 2 ♂ 3 ♀ examples of this species, captured between Dec. 25, 1917 and Jan. 26, 1918, at Moor Plantation, nr. Ibadan, S. Nigeria. They were feeding from the anus of dead *Cremastogaster* ants as described in Proc. Ent. Soc., 1918, pp. xxxv, xxxvi, xl. An observation made by Farquharson at a later date (see pp. 443-44) clearly shows that *R. apicalis* pursues the living ants with the same object.—E.B.P.]

The genus *Rhynchopsilopa* was distinguished from *Psilopa* Fallén by Hendel by reason of its long antennae, with the
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first joint porrect, second and third drooping, third 3-4 times as long as wide, and pubescent. Only one fronto-orbital bristle and that pointing forwards. Mouth-edge projecting in front. Palpi projecting slightly beyond mouth-edge and bristly at tip. Proboscis geniculate, the middle part long, the small paraglossae bent backwards.

The type-species, *R. magnicornis* from Formosa, is stated to have a distinct bristle at end of second antennal joint directed forwards, palpi dull black, arista black, only one pair of dorso-central bristles with a row of fine hairs in front, acrostichals present ending in a pair of prescutellar bristles.

Another species, *R. rugosicutata* Meij. from Java, appears to agree with *magnicornis* in having only one pair of dorso-central bristles, but the frontal triangle is dull black, and the scutellum and greater part of pleurae is "runzelig und dadurch ziemlich matt." It agrees more with *apicalis* in having only a very weak bristle at end of second antennal joint pointing forwards.

Neither *magnicornis* nor *rugosicutata* have a darkened tip to wing.

MILICHIDAE.

MILICHIA Meigen, Syst. Besch., vi, 131 (1830).

The following species all belong to the genus *Milichia* as at present restricted, though they differ considerably from the type species (*speciosa*). The bare mesopleurae appear to keep them out of the genus *Rhynchomilichia*, which they approach in the structure of the proboscis. The species described below as *M. farquharsoni* is the most aberrant in chaetotactic as well as other characters. It is considered advisable to retain them all in the genus *Milichia* until a better knowledge of the group has been attained.

1. *M. argyratoides*, sp. n. Plate XVII, fig. 1.

Dull, dark brown species. Abdomen of male almost entirely silvery. Only two parts of dorso-central and fronto-orbital bristles. Face exceedingly short. Third antennal joint darkened.

♂. Head and thorax dull dark brown. Frons wide, at vertex quite five times as wide as third antennal joint is deep, and widening out slightly towards antennae. Frontal lunule with a pair of

distinct bristles on the upper margin. Only two frontal bristles on each side of upper third of frons, the hinder one pointing backwards, the front one forwards, on rest of frons only a single row of very short incurved hairs each side and very short scattered hairs on disc. Face exceedingly short, the mouth-opening curving upwards almost to the tip of frontal lunule, leaving narrow cheeks each side which join the very narrow jowls below the eyes. A short black vibrissal bristle followed by 2-3 others, becoming shorter and finer as they approach and merge into the black hairs on lower part of back of head. Eyes microscopically pubescent. Antennae short, third joint dark brown, slightly yellowish in some lights, with a long, very distinctly pubescent, arista. Palpi very large, dilated in the shape of an equilateral triangle with rounded corners and slightly rounded sides; they are dark yellowish-brown and clothed with very short, fine, dark pubescence. Proboscis hidden between the palpi. Thorax rather greyish on humeri and right in front; front part of meso- and sterno-pleurae olive brown with a tendency to appear greyish in some lights. Disc covered with very short black hairs which leave three exceedingly narrow lines down the thorax, bare. Two pairs of dorso-central bristles, the front pair much the weaker, placed close to the hind pair and a little nearer the mid line of thorax; a strong central prescutellar pair of bristles, a humeral, a posthumeral, two notopleural, and three supra-alar bristles placed in a straight line parallel with a line joining the two strong bristles on postalar callus; four scutellar bristles with the middle pair cruciate; a tiny prothoracic bristle immediately above the base of front coxa and the usual three sternopleural bristles; mesopleura bare. Abdomen only a little broader than thorax, the long 2nd segment and the 3rd-5th segments entirely silvery-grey dorsally as in *speciosa*. Legs the colour of thorax but posterior knees very narrowly yellowish. Wings hyaline except at base as far as humeral and basal cross-veins; end of sub-costal vein distinctly, and small (discal) cross-vein slightly, darkened; this latter cross-vein placed at $\frac{1}{3}$, or very slightly more, from base of discal cell; cross-vein closing discal cell sloping so that lower outer angle of cell is acute. Last portion of discal vein slightly shorter than penultimate portion and almost parallel with cubital vein. Squamae and halteres dark.

♀. Resembling the male except that the abdomen is entirely dull, dark brown and bears more numerous short black hairs. Frons slightly wider at vertex and more parallel-sided.

Length 4 mm. One pair.

[The specimens arrived in a pill-box bearing the date

(? of emergence) Sept. 10, 1915, and the locality Mamu (Gambari), in the Shagamu district about 20 miles S. of Ibadan. They were bred on the road from larvae in an exuding wound in the bark of a *Uremastogaster* ant-tree. Notes on the life-history and habits of the larvae will be found on pp. 444-45.—E.B.P.]

M. argyratoides appears closely to resemble *M. argyrata* Hendel from Formosa, which was described as belonging to the *speciosa*-group and presumably differs in having the face long, as in that species. Hendel's species also has only one pair of dorso-central bristles, while the male abdomen is twice as wide as the thorax, and the third and fourth (cubital and discal) veins slightly converge towards tip of wing.

2. *M. proectes*, sp. n.

Resembling *M. argyratoides*, but thorax rather lighter olive-brown. Abdomen with silvery patches at sides only. Antennae with yellowish third joint.

♂. Head in profile very much like that of *argyratoides* but the palpi are not so prominent and are wider at the base, while the row of bristles from vibrissal angle along the mouth-edge are longer and stronger. Face very short but distance from end point of frontal lunule to mouth-edge a little less than third antennal joint is deep. Frontal lunule with a pair of small bristles. Palpi a paler yellowish brown. In the type the paraglossae of proboscis project beyond the palpi as diverging pointed lobes bearing a few black hairs. Thoracic chaetotaxy as in *argyratoides*. Abdomen the same colour as thorax and rather narrower; viewed in some lights the sides of the first four segments are silvery, spreading very narrowly across the front margin of the third and fourth segments; front margin of fifth segment very narrowly silvery at sides. Viewed directly from behind these silvery patches appear dull black. Venter with at least the broad third and fourth tergites silvery in some lights. Legs with the front as well as the posterior knees very narrowly pale, the femora in some lights appearing silvery beneath. Wings faintly tinged with brown, the small (discal) cross-vein rather further from base of cell, last portion of discal vein rather shorter than penultimate portion and almost parallel with cubital; lower outer angle of discal cell rather acute.

Length 3.75 mm.

A single male.

[The specimen formed part of the material, captured at

Moor Plantation, near Ibadan, S. Nigeria, Dec. 23, 1917, to Jan. 26, 1918, and sent to illustrate Farquharson's observations on *Milichia* published in Proc. Ent. Soc., 1918, pp. xxxiii, xxxiv, xl, where it is shown that these flies solicit and receive regurgitated food from ants in the track running up the trunk of "*Cremastogaster*-ant-trees."—E.B.P.]

3. *M. prosaetes*, sp. n. Plate XVII, figs. 2 and 3.

Smaller and more shining than the previous two species. Abdomen distinctly shining and without silvery patches. Frons much narrower in male. Vibrissal angle more projecting.

♂. Frons only about twice as wide as third antennal joint is deep, dull brown, but varying from almost black to dull greyish brown according to the point of view. Frontal lunule with a pair of distinct bristles. Face very short, no longer than third antennal joint is deep. Both face and frontal lunule appearing silvery from some points of view. Vibrissal angle more projecting and the cheeks between face and eyes wider. A single vibrissa followed by a rather widely spaced row of short bristly hairs towards back of head. Palpi dark brown or reddish brown and pubescent, dilated leaf-like, but of a more even width throughout instead of being triangular as in the previous species. The long, very pointed, slightly hairy paraglossae of proboscis may project straight out between palpi, or be bent back and point towards prothoracic sternum. Antennae with third joint reddish brown, arista shorter than in the previous species and only microscopically pubescent. Thorax rather shining, dark brownish black; pleurae and hind part of disc in front of scutellum dusted greyish. Chaetotaxy as in *argyratoides* except that middle bristle of the three supra-alar bristles is not in a line with other two but placed rather higher up on disc. Abdomen very distinctly shining and blacker than thorax, the black hairs short and not very numerous. Tergites extremely narrow on first three segments, widening out into a triangle on fourth, and still wider on fifth, segment. Legs with the knee joints very narrowly, and the joints of coxae and trochanters indistinctly yellowish, hind femora at base with a long, fine, postero-ventral, bristly hair. Wings short and rather broad, faintly tinged with brown and distinctly brownish along the costa from humeral cross-vein to end of subcostal vein. Cross-vein closing discal cell not so sloping as in *proectes*; last portion of discal vein about two-thirds length of

penultimate portion and slightly diverging from cubital vein. Squamae and halteres dark, the latter with a yellowish base to stem.

♀. Resembling the male but frons nearly twice as wide and very faintly shining. Abdominal tergites of more equal width throughout.

Length barely 3 mm.

One male and five females.

[Two specimens, a ♂ and ♀, formed part of the material captured at Moor Plantation, near Ibadan, S. Nigeria, Dec. 23, 1917, to Jan. 26, 1918, and sent to illustrate Farquharson's notes in Proc. Ent. Soc., 1918, pp. xxxiii, xxxiv, xl. The remaining 4 ♀♀ were captured in the same locality, in May, 1918, on the evidence of a letter of May 28 (see p. 445). They formed part of a set of "absolutely guaranteed mendicants" (pp. 445-46), soliciting food from *Cremastogaster* ants.—E.B.P.]

4. *M. dectes*, sp. n.

Closely resembling *M. prosaetes* but wings without the brown streak along costa at base of wing, and thorax and abdomen more densely pubescent.

♂. Frons nearly double as wide as in *prosaetes* ♂ and with the bristles (especially ocellar and vertical) longer. Thorax blacker, without the slight brownish tinge of *prosaetes* and with more numerous short hairs; notopleural depression and disc of scutellum with a greyish tinge in some lights; supra-alar bristles almost in a straight line. Abdomen with a distinct greyish tinge about the base of the second segment except at the sides; the short black hairs with which the abdomen is clothed very much more numerous. Tergites of moderate width throughout. Wings without any indication of the brownish costal streak of *prosaetes*.

♀. Resembling the male, frons only slightly wider than in *prosaetes* ♀. The greyish tinge about the base of second abdominal segment not so conspicuous as in the male. Slightly smaller than *prosaetes*.

Two males and four females.

[A single ♀ formed part of the material of Dec. 23, 1917 to Jan. 26, 1918, and the remaining 2 ♂, 3 ♀ a part of the series of "absolutely guaranteed mendicants," as described under *M. prosaetes*.—E.B.P.]

5. *M. farquharsoni*, sp. n. Plate XVII, figs. 4-6.

Superficially somewhat resembling the two previous species, but with the second antennal joint longer, a

proboscis of remarkable structure, and different thoracic chaetotaxy and costal lobe.

♀. Head rather wider than thorax. Eyes microscopically pubescent. Frons almost a third the width of head, parallel-sided, brownish, and dull on the broad central stripe and at vertex, more greyish and slightly shining on the narrow orbits next to eye-margin. Chaetotaxy as in other species. Frontal lunule small, shining, the usual pair of bristles very short and fine. Face only slightly narrower than frons, longer than in any of the other species, flat and dull greyish. Cheeks rather distinct, of almost equal width throughout and merging into the jowls which become very narrow at lower margin of eyes. No distinct vibrissae—only a row of short fine hairs. Antennae placed very close together at base, first joint very short, indistinguishable on the outer side but visible as a ridge on the inner and lower sides; second joint long, dull brownish black, almost as long as the third joint which is rounded in outline and strongly compressed laterally; inner side of second and third joints clothed with a curious soft fine curved pubescence; third joint yellowish brown at least about the base. Arista microscopically pubescent, second joint long. Palpi greyish brown, of almost equal width throughout and laterally compressed, closely approximating at the upper mouth-margin and then widely diverging, this diverging portion being somewhat concave on the inner side; the margin of this concave part and the whole of the lower side of the palpi clothed with similar soft fine curved pubescence as on inner side of antennae. Proboscis geniculate, the basal part much flattened, bare on the central part but clothed with short dark hairs at the sides, terminal part (paraglossae) of a curious shape, compressed laterally and bearing on the upperside towards tip some remarkable long bristly hairs.

Thorax rather dull brown with an aceneous tinge; pleurae dusted greyish. Chaetotaxy as in the other species except for the absence of the posthumeral, supra-alar (as distinct from postalar) and central prescutellar, bristles. Abdomen brilliantly shining black except on the first segment and a large dull greyish patch occupying the greater part of disc of second, and (to a rather less extent) of third segment; the moderately short black hairs, scattered, not very numerous, and more upright on fifth segment.

Legs black with the tip of anterior tibiae and all tarsi (except for the last joint or two) yellowish, but the front tibiae are brownish yellow on basal part, and the hind tarsi are rather brownish on the basal joint. Hind tibiae with a rather sinuous antero-dorsal ridge, behind which is a flattened and slightly concave space, brilliantly

shining, with violet reflections, down which runs a single row of short black bristles. Wings with a faint yellowish tinge and yellow veins. End of subcostal vein sharply marked black, emphasised by the fact that the costa just before the break at this point is produced into a black lobe. Small (discal) cross-vein opposite end of subcostal vein, ends of cubital and discal veins distinctly converging, and last portion of latter vein distinctly longer than penultimate portion. Squamae dusky with pale brown fringes. Halteres black with brownish-yellow stems.

Length barely 3 mm.

Five females.

[All the specimens formed part of a set of "absolutely guaranteed haunting flies," captured in May, 1918, on the evidence of a letter of May 28 (see p. 445), at Moor Plantation, S. Nigeria. These flies were haunting the carton nest of *Cremastogaster* ants as described on pp. 445-46. They were not seen to receive food from the ants like the other species here described.—E.B.P.]

EXPLANATION OF PLATE XIV.

PLATE XIV.

Farquharsonia rostrata, sp. n.

- FIG. 1. Outline of female $\times 33$.
2. Mouth-parts of female from in front $\times 40$.
3. Side view of labrum, hypopharynx, etc. $\times 40$.
4. One of the middle joints of male antennal flagellum, much enlarged. (Only one of the straight and one of the curved bristles figured.)
5. One of the middle joints of female antennal flagellum, much enlarged. (No bristles figured.)
6. Outline of first three joints of male antenna, much enlarged.
7. Outline of terminal antennal joint of male, much enlarged.
8. Hypopygium of male from above $\times 60$
9. Hypopygium of male from right side $\times 60$.
10. Hypopygium of male from beneath $\times 60$.
- } Bristles on
} basal joint of
} forceps not
} figured.